

SYSTEMS AND METHODS FOR REDUCING ELECTROMAGNETIC EMISSIONS IN COMMUNICATIONS

ABSTRACT OF THE DISCLOSURE

5 A digital communications system includes a transmitter and a receiver. The
transmitter can integrate encoded digital signals by converting the encoded digital
signals into integrated signals that are proportional to the time integral of the encoded
digital signals. The transmitter can then transmit the integrated signals. The receiver
can receive the integrated signals and thereafter differentiate the integrated signals
10 into a representation of the encoded digital signals that is proportional to the rate of
change of the integrated signals. By integrating the encoded digital signals at the
receiver and thereafter differentiate the integrated signals at the receiver, the system
can reduce electromagnetic emissions associated with the transmission of
communications via a transmission medium.

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